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=> index chemistry medicine bioscience
FILE 'DRUGMONOG' ACCESS NOT AUTHORIZED
COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                           ENTRY    SESSION
FULL ESTIMATED COST                                         0.21       0.21

INDEX 'AGRICOLA, ALUMINIUM, ANABSTR, APOLLIT, AQUIRE, BABS, BIOCOMMERCE,
       BIOTECHNO, CABA, CAOLD, CAPLUS, CBNB, CEABA-VTB, CEN, CERAB, CIN,
       COMPENDEX, CONFSCI, COPPERLIT, CORROSION, ENCOMPLIT, ENCOMPLIT2, FEDRIP,
       GENBANK, INSPEC, INSPHYS, INVESTEXT, IPA, ...'
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92 FILES IN THE FILE LIST IN STNINDEX

Enter SET DETAIL ON to see search term postings or to view
search error messages that display as 0* with SET DETAIL OFF.

=> insulin (s) (particle? or powder?) (s) (antisolvent? or cosolvent?) and (inhaler or
inhalation or pulmonary (w) delivery)
INSULIN IS NOT A RECOGNIZED COMMAND
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=> s insulin (s) (particle? or powder?) (s) (antisolvent? or cosolvent?) and (inhaler or
inhalation or pulmonary (w) delivery)
          2   FILE CAPLUS
  17 FILES SEARCHED...
          0*  FILE FEDRIP
  31 FILES SEARCHED...
  46 FILES SEARCHED...
          1   FILE DDFU
          2   FILE DRUGU
  62 FILES SEARCHED...
          1   FILE IFIPAT
          1   FILE TOXCENTER
         12   FILE USPATFULL
  78 FILES SEARCHED...
          3   FILE WPIDS
          3   FILE WPINDEX

   8 FILES HAVE ONE OR MORE ANSWERS,   92 FILES SEARCHED IN STNINDEX

L1    QUE INSULIN (S) (PARTICLE? OR POWDER?) (S) (ANTISOLVENT? OR COSOLVENT?) AN
        D (INHALER OR INHALATION OR PULMONARY (W) DELIVERY)

=> file hits
COST IN U.S. DOLLARS                                    SINCE FILE      TOTAL
                                                           ENTRY    SESSION
FULL ESTIMATED COST                                        18.70      18.91

FILE 'USPATFULL' ENTERED AT 15:38:50 ON 06 JAN 2003
CA INDEXING COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'WPIDS' ENTERED AT 15:38:50 ON 06 JAN 2003
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FILE 'DRUGU' ENTERED AT 15:38:50 ON 06 JAN 2003
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FILE 'DDFU' ACCESS NOT AUTHORIZED

FILE 'IFIPAT' ENTERED AT 15:38:50 ON 06 JAN 2003
COPYRIGHT (C) 2003 IFI CLAIMS(R) Patent Services (IFI)

FILE 'TOXCENTER' ENTERED AT 15:38:50 ON 06 JAN 2003
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=> s l1
L2 12 FILE USPATFULL
L3 3 FILE WPIDS
L4 2 FILE CAPLUS
L5 2 FILE DRUGU
L6 1 FILE IFIPAT
L7 1 FILE TOXCENTER

TOTAL FOR ALL FILES
L8 21 L1

=> dup rem l8
PROCESSING COMPLETED FOR L8
L9 17 DUP REM L8 (4 DUPLICATES REMOVED)

=> d l9 1-17 ibib abs

L9 ANSWER 1 OF 17 USPATFULL DUPLICATE 1
ACCESSION NUMBER: 2002:55003 USPATFULL
TITLE: Biocompatible cationic detergents and uses therefor
INVENTOR(S): Shefter, Eli, LaJolla, CA, UNITED STATES
Ruth, James A., Boulder, CO, UNITED STATES
Meyer, Jeffrey D., Aurora, CO, UNITED STATES
Manning, Mark C., Fort Collins, CO, UNITED STATES
Kroll, David J., Evergreen, CO, UNITED STATES
Claffey, David J., Lakewood, CO, UNITED STATES
PATENT ASSIGNEE(S): University Technology Corporation (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002032166	A1	20020314
APPLICATION INFO.:	US 2001-924898	A1	20010807 (9)

RELATED APPLN. INFO.: Division of Ser. No. US 1996-741429, filed on 29 Oct 1996, PENDING Continuation-in-part of Ser. No. US 1995-473008, filed on 6 Jun 1995, GRANTED, Pat. No. US 5770559 Continuation-in-part of Ser. No. US 1992-961162, filed on 14 Oct 1992, ABANDONED

	NUMBER	DATE
PRIORITY INFORMATION:	US 1996-26042P	19960913 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Wannell M. Crook, SHERIDAN ROSS P.C., Suite 1200, 1560 Broadway, Denver, CO, 80202-5141
NUMBER OF CLAIMS: 63
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 35 Drawing Page(s)
LINE COUNT: 2286
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Provided is a method for preparing a true, homogeneous solution of a pharmaceutical substance dissolved in an organic solvent in which the pharmaceutical substance is not normally soluble. Solubilization is obtained by forming a hydrophobic ion pair complex involving the pharmaceutical substance and an amphiphilic material. The resulting

organic solution may be further processed to prepare pharmaceutical powders. A biodegradable polymer may be co-dissolved with the pharmaceutical substance and the amphiphilic material and may be incorporated into a pharmaceutical powder. A preferred method for preparing pharmaceutical powders is to subject the organic solution to gas antisolvent precipitation using a supercritical gas antisolvent such as carbon dioxide. Also provided is a method for making hollow particles having a fiber-like shape which would provide enhanced retention time in the stomach if ingested by a human or animal host. Further provided are novel biocompatible cationic surfactants and uses therefor, including the delivery, in vitro and in vivo, of nucleic acids into cells to transform the cells.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 2 OF 17 USPATFULL

ACCESSION NUMBER:	2002:258380 USPATFULL
TITLE:	Particles for **inhalation** having rapid release properties
INVENTOR(S):	Schmitke, Jennifer L., Boston, MA, UNITED STATES Chen, Donghao, Lexington, MA, UNITED STATES Batycky, Richard P., Newton, MA, UNITED STATES Edwards, David A., Boston, MA, UNITED STATES Hrkach, Jeffrey S., Cambridge, MA, UNITED STATES
PATENT ASSIGNEE(S):	Advanced Inhalation Research, Inc., Cambridge, MA (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002141946	A1	20021003
APPLICATION INFO.:	US 2001-888126	A1	20010622 (9)

RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 2000-752109, filed on 29 Dec 2000, PENDING
DOCUMENT TYPE:	Utility
FILE SEGMENT:	APPLICATION
LEGAL REPRESENTATIVE:	HAMILTON, BROOK, SMITH & REYNOLDS, P.C., 530 VIRGINIA ROAD, P.O. BOX 9133, CONCORD, MA, 01742-9133
NUMBER OF CLAIMS:	60
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	7 Drawing Page(s)
LINE COUNT:	1786

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention generally relates to formulations having particles comprising phospholipids, bioactive agent and excipients and the **pulmonary delivery** thereof. Dry powder inhaled insulin formulations are disclosed. Formulations comprising DPPC, insulin and sodium citrate which are useful in the treatment of diabetes are disclosed. Also, the invention relates to a method of for the **pulmonary delivery** of a bioactive agent comprising administering to the respiratory tract of a patient in need of treatment, or diagnosis an effective amount of particles comprising a bioactive agent or any combination thereof in association, wherein release of the agent from the administered particles occurs in a rapid fashion.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 3 OF 17 USPATFULL

ACCESSION NUMBER:	2002:242826 USPATFULL
TITLE:	Sustainded-release composition including amorphous polymer
INVENTOR(S):	Randolph, Theodore W., Niwot, CO, UNITED STATES Manning, Mark C., Fort Collins, CO, UNITED STATES Falk, Richard F., Bend, OR, UNITED STATES
PATENT ASSIGNEE(S):	University Technology Corporation

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002132007	A1	20020919
APPLICATION INFO.:	US 2001-877330	A1	20010607 (9)

RELATED APPLN. INFO.: Continuation of Ser. No. US 2000-403412, filed on 8 Mar 2000, ABANDONED A 371 of International Ser. No. WO 1999-US6198, filed on 18 Mar 1999, UNKNOWN

	NUMBER	DATE
PRIORITY INFORMATION:	US 1999-166230P	19991118 (60)
	US 1998-78390P	19980318 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: MEDLEN & CARROLL, LLP, Suite 2200, 220 Montgomery Street, San Francisco, CA, 94104
NUMBER OF CLAIMS: 52
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 35 Drawing Page(s)
LINE COUNT: 2666
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Provided is a sustained release composition for sustained release of a pharmaceutical substance. The composition includes a biocompatible polymer that is highly amorphous and a pharmaceutical substance in a hydrophobic ion complex with an amphiphilic material. Also provided a compressed antisolvent method for manufacturing the composition, various product forms incorporating the composition and various uses for the composition.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 4 OF 17 USPATFULL
ACCESSION NUMBER: 2002:99409 USPATFULL
TITLE: Particles for **inhalation** having sustained release properties
INVENTOR(S): Edwards, David A., Boston, MA, UNITED STATES
Langer, Robert S., Newton, MA, UNITED STATES
Vanbever, Rita, Brussels, BELGIUM
Mintzes, Jeffrey, Brighton, MA, UNITED STATES
Wang, Jue, Clifton, NJ, UNITED STATES
Chen, Donghao, Quincy, MA, UNITED STATES
PATENT ASSIGNEE(S): Massachusetts Institute of Technology The Penn State Research Foundation (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002052310	A1	20020502
APPLICATION INFO.:	US 2000-752106	A1	20001229 (9)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1999-394233, filed on 13 Sep 1999, PENDING Continuation-in-part of Ser. No. US 1997-971791, filed on 17 Nov 1997, GRANTED, Pat. No. US 5985309

	NUMBER	DATE
PRIORITY INFORMATION:	US 1997-59004P	19970915 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Carolyn S. Elmore, HAMILTON, BROOK, SMITH & REYNOLDS, P.C., Two Militia Drive, Lexington, MA, 02421-4799
NUMBER OF CLAIMS: 34
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 3 Drawing Page(s)
LINE COUNT: 1702

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention generally relates to a method for **pulmonary delivery** of therapeutic, prophylactic and diagnostic agents to a patient wherein the agent is released in a sustained fashion, and to particles suitable for use in the method. In particular, the invention relates to a method for the **pulmonary delivery** of a therapeutic, prophylactic or diagnostic agent comprising administering to the respiratory tract of a patient in need of treatment, prophylaxis or diagnosis an effective amount of particles comprising a therapeutic, prophylactic or diagnostic agent or any combination thereof in association with a charged lipid, wherein the charged lipid has an overall net charge which is opposite to that of the agent upon association with the agent. Release of the agent from the administered particles occurs in a sustained fashion.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 5 OF 17 USPATFULL

ACCESSION NUMBER: 2002:31994 USPATFULL

TITLE: Methods and apparatus for fine particle formation

INVENTOR(S): Sievers, Robert E., Boulder, CO, UNITED STATES
Karst, Uwe, Muenster, GERMANY, FEDERAL REPUBLIC OF

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2002018815	A1	20020214
APPLICATION INFO.:	US 2001-858998	A1	20010516 (9)

RELATED APPLN. INFO.: Continuation of Ser. No. US 2000-598570, filed on 21 Jun 2000, PENDING Continuation of Ser. No. US 1997-847310, filed on 24 Apr 1997, GRANTED, Pat. No. US 6095134 Division of Ser. No. US 1994-224764, filed on 8 Apr 1994, GRANTED, Pat. No. US 5639441 Continuation-in-part of Ser. No. US 1992-846331, filed on 6 Mar 1992, GRANTED, Pat. No. US 5301664

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: GREENLEE WINNER AND SULLIVAN P C, 5370 MANHATTAN CIRCLE, SUITE 201, BOULDER, CO, 80303

NUMBER OF CLAIMS: 37

EXEMPLARY CLAIM: 1

NUMBER OF DRAWINGS: 5 Drawing Page(s)

LINE COUNT: 1243

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Methods and apparatuses are provided for forming fine particles of a desired substance comprising dissolving said substance in a fluid such as water to form a solution and mixing the solution with a second fluid such as supercritical carbon dioxide which becomes a gas upon rapid pressure release, and with which the first fluid is at least partially immiscible, and releasing the pressure to form an air-borne dispersion or aerosol comprising particles having an average diameter between about 0.1 and about 6.5 .mu.m.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 6 OF 17 USPATFULL

ACCESSION NUMBER: 2002:310617 USPATFULL

TITLE: Formulations comprising dehydrated particles of pharma-ceutical agents and process for preparing the same

INVENTOR(S): McCoy, Randall, McConnellsburg, PA, United States
Libbey, III, Miles Augustus, Pennington, NJ, United States
Liu, Jle, Scotch Plains, NJ, United States
Williams, III, Robert O., Austin, TX, United States

PATENT ASSIGNEE(S): DelRx Pharmaceutical Corp., Jamesburg, NJ, United

States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6485706	B1	20021126
APPLICATION INFO.:	US 2000-586007		20000602 (9)

RELATED APPLN. INFO.: Division of Ser. No. US 2000-502871, filed on 11 Feb 2000

	NUMBER	DATE
PRIORITY INFORMATION:	US 1999-137562P	19990604 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Dees, Jose' G.
ASSISTANT EXAMINER: Haghighatian, M.
LEGAL REPRESENTATIVE: Mathews, Collins, Shepherd & McKay
NUMBER OF CLAIMS: 19
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 2 Drawing Figure(s); 2 Drawing Page(s)
LINE COUNT: 614
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A formulation for non-invasive delivery of pharmaceutical agents, particularly proteins and peptides, by absorption through a membrane at a targeted site is provided, along with a process of making the formulation. The formulation comprises a suspension of solid-phase dehydrated particles in a delivery medium. The particles comprise the dehydration product of the pharmaceutical agent and at least one of a surfactant and permeation enhancer, and the delivery medium preferably comprises a propellant for pressurized aerosol delivery of the formulation. The formulation can be conveniently delivered to the patient's targeted site where the pharmaceutical agent is absorbed through the mucosa to achieve a desired bioavailability.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 7 OF 17 USPATFULL
ACCESSION NUMBER: 2002:137064 USPATFULL
TITLE: Preparation and use of photopolymerized microparticles
INVENTOR(S): Randolph, Theodore, Niwot, CO, United States
Anseth, Kristi, Boulder, CO, United States
Owens, Jennifer L., Boulder, CO, United States
Lengsfeld, Corinne, Denver, CO, United States
PATENT ASSIGNEE(S): University Technology Corporation, Boulder, CO, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6403672	B1	20020611
APPLICATION INFO.:	US 1999-451481		19991130 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-110816P	19981130 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Berman, Susan W.
LEGAL REPRESENTATIVE: Greenlee, Winner and Sullivan, P.C.
NUMBER OF CLAIMS: 44
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 13 Drawing Figure(s); 14 Drawing Page(s)
LINE COUNT: 1173
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Methods of forming polymer particles in situ from polymer precursors such as monomers or oligomers, comprising exposing a composition

comprising at least one polymer precursor, a solvent or solvent mixture, and an antisolvent or antisolvent mixture to photoradiation under conditions whereby particles are formed are provided. The polymer precursor may be photosensitive, or a separate polymerization initiator may be used. In a preferred embodiment, the polymer precursor is insoluble in the antisolvent or antisolvent mixture and the solvent or solvent mixture is soluble in the antisolvent or antisolvent mixture at the concentrations used. Polymer particles comprising a polymer and a bioactive material are also provided. The polymer may be erodable, and the polymer particles formed may be used in a variety of applications, including controlled release of bioactive materials such as drugs. Polymer particles formed using the methods of the invention have low residual solvent levels and high additive encapsulation efficiencies. The processes of the invention allow control of particle size and morphology, use low operating temperatures and are useful for efficient bulk production.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 8 OF 17 WPIDS (C) 2003 THOMSON DERWENT
ACCESSION NUMBER: 2002-471870 [50] WPIDS
DOC. NO. CPI: C2002-134280
TITLE: Production of uniform small particles, e.g. of a protein drug such as insulin, by contacting and a expanding non-gaseous fluid containing the material with dense gas including anti-solvent and a modifying agent.
DERWENT CLASS: B04 B07
INVENTOR(S): BUSTAMI, R T; CHAN, H; DEHGHANI, F; FOSTER, N R; REGTOP, H L
PATENT ASSIGNEE(S): (UNIX) UNISEARCH LTD; (UNSY) UNIV SYDNEY
COUNTRY COUNT: 99
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2002045690	A1	20020613	(200250)*	EN	43
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZM ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ OM PH PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZM ZW					
AU 2002021320	A	20020618	(200262)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2002045690	A1	WO 2001-AU1584	20011207
AU 2002021320	A	AU 2002-21320	20011207

FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2002021320	A Based on	WO 200245690

PRIORITY APPLN. INFO: AU 2000-1970 20001208
AN 2002-471870 [50] WPIDS
AB WO 200245690 A UPAB: 20020807
NOVELTY - Production of small particles of a material (I) involving contacting a non-gaseous fluid (NGF) containing (I) with dense gas to expand the fluid, where the dense gas includes an anti-solvent (a) and a modifying agent (b) for the polarity of (a), is new.
DETAILED DESCRIPTION - An INDEPENDENT CLAIM is included for fine

particles of (I) obtained by the method.

ACTIVITY - Antidiabetic.

MECHANISM OF ACTION - Replenishment of insulin using particles of insulin.

USE - (I) is specifically a pH-sensitive, biologically active agent ; and is useful in the production of a composition for drug administration (specifically by **inhalation**, transdermal, oral, controlled release or sustained release methods). In particular the insulin particles obtained by the method are used for the treatment of insulin-dependent diabetes. More generally (I) is selected from proteins, nucleic acids, liposomes, lipids (including phospholipids), water-soluble polymers, controlled delivery coatings, surfactants and phytosterols (natural or synthetic) (all claimed).

ADVANTAGE - Fine, relatively uniform **particles** of pH-sensitive materials (I) can be generated while maintaining the structure and/or activity of (I); typically 98-100% of the biological activity can be retained. In particular the **particles** have a similar shape and size (claimed). The process can be carried out efficiently at relatively low temperature and pressure (specifically under subcritical conditions), using apparatus which does not damage the **particles** or increase the average **particle** size. (I) can be used in concentrated aqueous solutions, which minimize the risk of deactivation of (I) and are easy and inexpensive to handle. The preferred **antisolvents** (a) are neutral, avoiding the problems associated with acidic environments. The modifiers (b) may enhance the morphological characteristics of the obtained **powders** (e.g. of **insulin**). Dissolution rate and/or bioavailability enhancers may be co-precipitated with (I). In particular uniform sized micronized protein **particles** suitable for aerosol drug delivery systems can be produced from an aqueous solution at room temperature in one step.

Dwg.0/11

L9 ANSWER 9 OF 17 DRUGU COPYRIGHT 2003 THOMSON DERWENT

ACCESSION NUMBER: 2002-37176 DRUGU E G

TITLE: Micronization of insulin from halogenated alcohol solution using supercritical carbon dioxide as an antisolvent.

AUTHOR: Snavely B K; Subramaniam B; Rajewski R A; Defelippis M R

CORPORATE SOURCE: Univ.Kansas; Lilly

LOCATION: Lawrence, Kans.; Indianapolis, Ind., USA

SOURCE: J.Pharm.Sci. (91, No. 9, 2026-39, 2002) 8 Fig. 5 Tab. 34 Ref.
CODEN: JPMSAE ISSN: 0022-3549

AVAIL. OF DOC.: Department of Chemical and Petroleum Engineering, University of Kansas, Lawrence, Kansas 66045, U.S.A. (B.S.). (e-mail: bsubramaniam@ku.edu).

LANGUAGE: English

DOCUMENT TYPE: Journal

FIELD AVAIL.: AB; LA; CT

FILE SEGMENT: Literature

AN 2002-37176 DRUGU E G

AB Biosynthetic human **insulin** Zn crystals (Lilly) were micronized by precipitation with compressed **antisolvent** (PCA) from solution in 1,1,1,3,3,3-hexafluoro-2-propanol (HFIP) using supercritical carbon dioxide as **antisolvent**. PCA processed **insulin** retained its potency, was slightly degraded chemically, and showed reversible structural changes. Deagglomeration of the **insulin** aggregates obtained by PCA, may yield discrete uniform **particles** (1-5 nm) suitable for **pulmonary delivery**.Over the ranges of operating variables studied, the factors chosen for the experimental design had little effect on the product characteristics.

ABEX Methods Human insulin crystals were dissolved in HFIP and the solution was sprayed through an ultrasonic nozzle into supercritical CO2. The factors in the 23 factorial design with a center point replicate included pressure (83.7 and 97.5 bar), solution content (15 and 30 mg/ml), and solution flow rate (2 and 4 ml/min). Temperature (37 deg), CO2 mass flow rate (137 g/min), and volume of solution sprayed (20 ml)

were held constant. HPLC, CD, IR, and Raman spectroscopy, scanning electron microscopy, dry powder size distribution analysis, thermogravimetric analysis (TGA), and atomic absorption spectroscopy were used to characterize the processed insulin powder. Results The precipitated powder consisted of physical aggregates of 50 nm spheres. For PCA and unprocessed insulin, respective potency was 26.8 and 25.9 U/mg, purity was 97.9 and 99.1%, and high molecular weight polymer content was 0.65 and 0.10%. TGA data showed that the volatile content of the PCA insulin powders ranged from 3 to 7%, i.e. comparable to unprocessed insulin. (WS)

L9 ANSWER 10 OF 17 CAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:83103 CAPLUS
DOCUMENT NUMBER: 136:371618
TITLE: Micronization of insulin from halogenated alcohol solution using supercritical carbon dioxide as antisolvent
AUTHOR(S): Snavely, William Kirk
CORPORATE SOURCE: Univ. of Kansas, Lawrence, KS, USA
SOURCE: (2001) 231 pp. Avail.: UMI, Order No. DA3013510 From: Diss. Abstr. Int., B 2001, 62(4), 1967
DOCUMENT TYPE: Dissertation
LANGUAGE: English
AB Unavailable

L9 ANSWER 11 OF 17 USPATFULL DUPLICATE 2
ACCESSION NUMBER: 2001:193967 USPATFULL
TITLE: Particulate drug-containing products and method of manufacture
INVENTOR(S): Etter, Jeffrey B., Boulder, CO, United States

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2001036480	A1	20011101
APPLICATION INFO.:	US 2000-740573	A1	20001218 (9)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 2000-604786, filed on 26 Jun 2000, PENDING Continuation-in-part of Ser. No. US 1999-469733, filed on 21 Dec 1999, PENDING
DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Marsh Fischmann & Breyfogle LLP, 3151 South Vaughn Way, Suite 411, Aurora, CO, 80014
NUMBER OF CLAIMS: 93
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 9 Drawing Page(s)
LINE COUNT: 1958
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Provided is a compressed anti-solvent technique for manufacture of drug-containing powders for **pulmonary delivery**. The drug is processed in a cosolvent system including two or more mutually soluble organic solvents. Also provided are powders manufacturable by the manufacture method, including powders of substantially pure drug and powders including a biocompatible polymer for pulmonary sustained drug release applications. Also provided are packaged products including drug-containing powder in a container that is receivable by and operable with a dry powder **inhaler** to produce an aerosol including dispersed drug-containing particles when the **inhaler** is actuated.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 12 OF 17 WPIDS (C) 2003 THOMSON DERWENT DUPLICATE 3
ACCESSION NUMBER: 2001-581197 [65] WPIDS
CROSS REFERENCE: 2002-129731 [17]
DOC. NO. CPI: C2001-172184

TITLE: Preparation of particulate drug-containing material (e.g. **insulin**), by mixing a drug-containing solution with an **antisolvent**, and encapsulating to form aerosolizable **particles** for **inhalation**

DERWENT CLASS: A96 B04 B07
INVENTOR(S): ETTER, J B
PATENT ASSIGNEE(S): (RXKI-N) RXKINETIX INC
COUNTRY COUNT: 94
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2001045731	A1	20010628	(200165)*	EN	63

RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW

AU 2001027291	A	20010703	(200165)		
EP 1242112	A1	20020925	(200271)	EN	

R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2001045731	A1	WO 2000-US34436	20001218
AU 2001027291	A	AU 2001-27291	20001218
EP 1242112	A1	EP 2000-990240	20001218
		WO 2000-US34436	20001218

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 2001027291	A	Based on	WO 200145731
EP 1242112	A1	Based on	WO 200145731

PRIORITY APPLN. INFO: US 2000-604786 20000626; US 1999-469733 19991221
AN 2001-581197 [65] WPIDS
CR 2002-129731 [17]
AB WO 200145731 A UPAB: 20021105
NOVELTY - Method for making a drug-containing particulate product comprises: (a) contacting a drug-containing feed solution (comprising the drug in a cosolvent system of at least 2 organic solvents) with a compressed anti-solvent fluid to precipitate drug-containing particles; and (b) separating the drug-containing particles from the anti-solvent fluid.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for:

(1) a particulate product for **pulmonary delivery** of a drug comprising a powder batch of particles including at least 1 drug. The powder batch has a tap density of 0.1-0.5 g/cm3 and is aerosolizable by an **inhaler** to give an aerosol having dispersed drug particles of mass median aerodynamic diameter of less than 6 microns in a carrier gas;

(2) a method for generating an aerosol for **pulmonary delivery** of a drug by aerosolizing drug-containing particles;

(3) a particulate product comprising a multicomponent material including a drug and a biocompatible polymer and having a degree of drug encapsulation of at least 30%. The particulate product is aerosolizable by an **inhaler** to give an aerosol having dispersed drug particles of

mass median aerodynamic diameter of less than 6 microns; and
(4) an apparatus for generating a drug-containing aerosol for **pulmonary delivery**, comprising an **inhaler** containing particulate material, the **inhaler** being able to aerosolize the particles to give a drug-containing aerosol.
ACTIVITY - Antidiabetic.
MECHANISM OF ACTION - None given.
USE - Drug-containing particles (especially containing insulin) are useful for aerosolizing in an **inhaler**, for treating diabetic patients.
Dwg.0/20

L9 ANSWER 13 OF 17 USPATFULL
ACCESSION NUMBER: 2000:96821 USPATFULL
TITLE: Methods and apparatus for fine particle formation
INVENTOR(S): Sievers, Robert E., Boulder, CO, United States
Karst, Uwe, Muenster, Germany, Federal Republic of
PATENT ASSIGNEE(S): The Board of Regents of the University of Co, Boulder, CO, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6095134		20000801
APPLICATION INFO.:	US 1997-847310		19970424 (8)

RELATED APPLN. INFO.: Division of Ser. No. US 1994-224764, filed on 8 Apr 1994, now patented, Pat. No. US 5639441 which is a continuation-in-part of Ser. No. US 1992-846331, filed on 6 Mar 1992, now patented, Pat. No. US 5301664
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Lewis, Aaron J.
LEGAL REPRESENTATIVE: Greenlee, Winner and Sullivan, P.C.
NUMBER OF CLAIMS: 24
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 5 Drawing Figure(s); 5 Drawing Page(s)
LINE COUNT: 1257
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Methods and apparatuses are provided for forming fine particles of a desired substance comprising dissolving said substance in a fluid such as water to form a solution and mixing the solution with a second fluid such as supercritical carbon dioxide which becomes a gas upon rapid pressure release, and with which the first fluid is at least partially immiscible, and releasing the pressure to form an air-borne dispersion or aerosol comprising particles having an average diameter between about 0.1 and about 6.5 .mu.m.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 14 OF 17 USPATFULL
ACCESSION NUMBER: 1999:141881 USPATFULL
TITLE: Solubilization of pharmaceutical substances in an organic solvent and preparation of pharmaceutical powders using the same
INVENTOR(S): Manning, Mark C., Fort Collins, CO, United States
Randolph, Theodore W., Niwot, CO, United States
Shefter, Eli, LaJolla, CA, United States
Falk, III, Richard F., Boulder, CO, United States
PATENT ASSIGNEE(S): University Technology Corporation, Boulder, CO, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5981474		19991109
APPLICATION INFO.:	US 1998-98791		19980617 (9)

RELATED APPLN. INFO.: Division of Ser. No. US 1995-473008, filed on 6 Jun

1995, now patented, Pat. No. US 5770559 which is a continuation-in-part of Ser. No. US 1992-961162, filed on 14 Oct 1992, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Tsang, Cecilia J.
ASSISTANT EXAMINER: Mohamed, Abdel A.
LEGAL REPRESENTATIVE: Ross P.C., Sheridan
NUMBER OF CLAIMS: 21
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 19 Drawing Figure(s); 18 Drawing Page(s)
LINE COUNT: 1593
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Provided is a method for preparing a true, homogeneous solution of a pharmaceutical substance dissolved in an organic solvent in which the pharmaceutical substance is not normally soluble. Solubilization is obtained by forming a hydrophobic ion pair complex involving the pharmaceutical substance and an amphiphilic material. The resulting organic solution may be further processed to prepare pharmaceutical powders. A biodegradable polymer may be co-dissolved with the pharmaceutical substance and the amphiphilic material and may be incorporated into a pharmaceutical powder. A preferred method for preparing pharmaceutical powders is to subject the organic solution to gas antisolvent precipitation using a supercritical gas antisolvent such as carbon dioxide. Also provided is a method for making hollow particles having a fiber-like shape which would provide enhanced retention time in the stomach if ingested by a human or animal host.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 15 OF 17 USPATFULL
ACCESSION NUMBER: 1998:72585 USPATFULL
TITLE: Solubilization of pharmaceutical substances in an organic solvent and preparation of pharmaceutical powders using the same
INVENTOR(S): Manning, Mark C., Fort Collins, CO, United States
Randolph, Theodore W., Niwot, CO, United States
Shefter, Eli, LaJolla, CA, United States
Falk, III, Richard F., Boulder, CO, United States
PATENT ASSIGNEE(S): The Regents of the University of Colorado, Boulder, CO, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5770559		19980623
APPLICATION INFO.:	US 1995-473008		19950606 (8)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1992-961162, filed on 14 Oct 1992, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Tsang, Cecilia J.
ASSISTANT EXAMINER: Mohamed, Abdel A.
LEGAL REPRESENTATIVE: Holme Roberts & Owen
NUMBER OF CLAIMS: 31
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 19 Drawing Figure(s); 18 Drawing Page(s)
LINE COUNT: 1652
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Provided is a method for preparing a true, homogeneous solution of a pharmaceutical substance dissolved in an organic solvent in which the pharmaceutical substance is not normally soluble. Solubilization is obtained by forming a hydrophobic ion pair complex involving the pharmaceutical substance and an amphiphilic material. The resulting organic solution may be further processed to prepare pharmaceutical powders. A biodegradable polymer may be co-dissolved with the

pharmaceutical substance and the amphiphilic material and may be incorporated into a pharmaceutical powder. A preferred method for preparing pharmaceutical powders is to subject the organic solution to gas antisolvent precipitation using a supercritical gas antisolvent such as carbon dioxide. Also provided is a method for making hollow particles having a fiber-like shape which would provide enhanced retention time in the stomach if ingested by a human or animal host.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 16 OF 17 USPATFULL
ACCESSION NUMBER: 97:51698 USPATFULL
TITLE: Methods for fine particle formation
INVENTOR(S): Sievers, Robert E., Boulder, CO, United States
Karst, Uwe, Muenster, Germany, Federal Republic of
PATENT ASSIGNEE(S): Board of Regents of University of Colorado, Boulder, CO, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5639441		19970617
APPLICATION INFO.:	US 1994-224764		19940408 (8)

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1992-846331, filed on 6 Mar 1992, now patented, Pat. No. US 5301664
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Lovering, Richard D.
LEGAL REPRESENTATIVE: Greenlee, Winner and Sullivan, P.C.
NUMBER OF CLAIMS: 32
EXEMPLARY CLAIM: 1,24
NUMBER OF DRAWINGS: 5 Drawing Figure(s); 5 Drawing Page(s)
LINE COUNT: 1280
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Methods and apparatuses are provided for forming fine particles of a desired substance comprising dissolving said substance in a fluid such as water to form a solution and mixing the solution with a second fluid such as supercritical carbon dioxide which becomes a gas upon rapid pressure release, and with which the first fluid is at least partially immiscible, and releasing the pressure to form an air-borne dispersion or aerosol comprising particles having an average diameter between about 0.1 and about 6.5 .mu.m.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L9 ANSWER 17 OF 17 DRUGU COPYRIGHT 2003 THOMSON DERWENT
ACCESSION NUMBER: 1997-40125 DRUGU G
TITLE: Preparation of peptide and protein powders for **inhalation**.
AUTHOR: Johnson K A
CORPORATE SOURCE: Inhale-Therapeutic-Syst.
LOCATION: Palo Alto, Cal., USA
SOURCE: Adv.Drug Delivery Rev. (26, No. 1, 3-15, 1997) 3 Tab. 90 Ref.
CODEN: ADDREP ISSN: 0169-409X
AVAIL. OF DOC.: Glaxo Dermatology, Glaxo Wellcome Inc., Five Moore Drive, Research Triangle Park, NC 27709, U.S.A.
LANGUAGE: English
DOCUMENT TYPE: Journal
FIELD AVAIL.: AB; LA; CT
FILE SEGMENT: Literature
AN 1997-40125 DRUGU G
AB The preparation of peptide and protein powders for **inhalation** is reviewed. Preparation of aerosols for **inhalation** is discussed with reference to particle size, formulations and delivery systems, and formulations for macromolecules. Preparation of fine protein powders is outlined and milling, spray drying, supercritical

fluids, precipitation and food processes, and powder blends and carriers are detailed.

ABEX The generally accepted aerodynamic **particle** size range for respiratory drug delivery is from 1-5 um. Drugs for **inhalation** can be dissolved in aqueous based formulations for nebulization or in liquefied propellant based formulations for delivery by a metered dose **inhaler** (MDI). Excipients commonly used in nebulizer and MDI formulations are tabulated. Proteins and peptides are challenging molecules to formulate because they have a high molecular weight and contain many different functional groups. The rate of degradation of a molecule is a function of the formulation, manufacturing process, packaging and storage conditions. Chemical degradation mechanisms for proteins and peptides include deamidation, oxidation, beta elimination and disulfide exchange. Macromolecules can be physically degraded by loss of secondary or tertiary structures. Excipients commonly used to stabilize macromolecule drug formulations include serum albumin, glycine, lysine, polysorbate 80, poloxamer 188, mannitol, sorbital, sucrose, lactose and disodium EDTA. Coarse **powders** can be reduced to respirable **powders** in ball, colloid, hammer and jet or fluid-energy mills. Leuprolide-acetate, **insulin**, human somatotropin, IFN-beta, G-CSF and IL-6 have been prepared for **inhalation** by milling. Lyophilized heparin, Hb, catalase and **insulin** have all been subjected to milling. **Insulin** and G-CSF have been prepared by spray drying. Fine protein **particles** of catalase and **insulin** have been prepared using supercritical fluids as **antisolvents**. Examples of protein formulations including **insulin** and salmon calcitonin are described. (TOB)

=>

WEST Search History

DATE: Monday, January 06, 2003

Set Name side by side	Query	Hit Count	Set Name result set
	DB=USPT,PGPB,EPAB,DWPI,TDBD; THES=ASSIGNEE; PLUR=YES; OP=ADJ		
L4	insulin same (particle? or powder?) same (antisolvent and cosolvent)	1	L4
L3	L2 and (inhaler or inhalation or aerosolization or (pulmonary adj delivery))	8	L3
L2	insulin same particle? and antisolvent	11	L2
L1	insulin same particle? same antisolvent	9	L1

END OF SEARCH HISTORY

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Search Results - Record(s) 1 through 11 of 11 returned.

☐ 1. Document ID: US 20020132007 A1

L2: Entry 1 of 11 File: PGPB Sep 19, 2002

PGPUB-DOCUMENT-NUMBER: 20020132007
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020132007 A1

TITLE: Sustainded-release composition including amorphous polymer

PUBLICATION-DATE: September 19, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Randolph, Theodore W.	Niwot	CO	US	
Manning, Mark C.	Fort Collins	CO	US	
Falk, Richard F.	Bend	OR	US	

US-CL-CURRENT: 424/486

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

☐ 2. Document ID: US 20020032166 A1

L2: Entry 2 of 11 File: PGPB Mar 14, 2002

PGPUB-DOCUMENT-NUMBER: 20020032166
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020032166 A1

TITLE: Biocompatible cationic detergents and uses therefor

PUBLICATION-DATE: March 14, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Shefter, Eli	LaJolla	CA	US	
Ruth, James A.	Boulder	CO	US	
Meyer, Jeffrey D.	Aurora	CO	US	
Manning, Mark C.	Fort Collins	CO	US	
Kroll, David J.	Evergreen	CO	US	
Claffey, David J.	Lakewood	CO	US	

US-CL-CURRENT: 514/44; 514/171, 552/544

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

☐ 3. Document ID: US 20020000681 A1

L2: Entry 3 of 11 File: PGPB Jan 3, 2002

PGPUB-DOCUMENT-NUMBER: 20020000681
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020000681 A1

TITLE: Method of forming nanoparticles and microparticles of controllable size using supercritical fluids and ultrasound

PUBLICATION-DATE: January 3, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Gupta, Ram B.	Auburn	AL	US	
Chattopadhyay, Pratibhash	Auburn	AL	US	

US-CL-CURRENT: 264/9

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

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☐ 4. Document ID: US 20010036480 A1

L2: Entry 4 of 11 File: PGPB Nov 1, 2001

PGPUB-DOCUMENT-NUMBER: 20010036480
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20010036480 A1

TITLE: Particulate drug-containing products and method of manufacture

PUBLICATION-DATE: November 1, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Etter, Jeffrey B.	Boulder	CO	US	

US-CL-CURRENT: 424/489; 264/12

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

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☐ 5. Document ID: US 6403672 B1

L2: Entry 5 of 11 File: USPT Jun 11, 2002

US-PAT-NO: 6403672
DOCUMENT-IDENTIFIER: US 6403672 B1

TITLE: Preparation and use of photopolymerized microparticles

DATE-ISSUED: June 11, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Randolph; Theodore	Niwot	CO		
Anseth; Kristi	Boulder	CO		
Owens; Jennifer L.	Boulder	CO		
Lengsfeld; Corinne	Denver	CO		

US-CL-CURRENT: 522/79; 424/486, 424/489, 522/182, 522/80, 522/87, 522/88, 522/89

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments KWIC | Draw. Desc | Image

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☐ 6. Document ID: US 6063910 A

L2: Entry 6 of 11 File: USPT May 16, 2000

US-PAT-NO: 6063910
DOCUMENT-IDENTIFIER: US 6063910 A

TITLE: Preparation of protein microparticles by supercritical fluid precipitation

DATE-ISSUED: May 16, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Debenedetti; Pablo G.	Princeton	NJ		
Lim; Gio-Bin	Seoul			KR
Prud'Homme; Robert K.	Princeton Junction	NJ		

US-CL-CURRENT: 530/418; 264/5, 424/44, 424/45, 424/489, 426/425, 530/350

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments KWIC | Draw. Desc | Image

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☐ 7. Document ID: US 6051694 A

L2: Entry 7 of 11 File: USPT Apr 18, 2000

US-PAT-NO: 6051694
DOCUMENT-IDENTIFIER: US 6051694 A

TITLE: Method for size reduction of proteins

DATE-ISSUED: April 18, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Castor; Trevor Percival	Arlington	MA	02174	
Hong; Glenn Thomas	Westborough	MA	01581	

US-CL-CURRENT: 530/418; 530/419, 530/420, 530/427

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments KWIC | Draw. Desc | Image

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☐ 8. Document ID: US 5981474 A

L2: Entry 8 of 11 File: USPT Nov 9, 1999

US-PAT-NO: 5981474
DOCUMENT-IDENTIFIER: US 5981474 A

TITLE: Solubilization of pharmaceutical substances in an organic solvent and preparation of pharmaceutical powders using the same

DATE-ISSUED: November 9, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Manning; Mark C.	Fort Collins	CO		
Randolph; Theodore W.	Niwot	CO		
Shefter; Eli	LaJolla	CA		
Falk, III; Richard F.	Boulder	CO		

US-CL-CURRENT: 514/2; 424/450, 424/489, 514/21, 530/412, 530/418, 530/419, 530/427

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw. Desc | Image

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☐ 9. Document ID: US 5770559 A

L2: Entry 9 of 11 File: USPT Jun 23, 1998

US-PAT-NO: 5770559
DOCUMENT-IDENTIFIER: US 5770559 A

TITLE: Solubilization of pharmaceutical substances in an organic solvent and preparation of pharmaceutical powders using the same

DATE-ISSUED: June 23, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Manning; Mark C.	Fort Collins	CO		
Randolph; Theodore W.	Niwot	CO		
Shefter; Eli	LaJolla	CA		
Falk, III; Richard F.	Boulder	CO		

US-CL-CURRENT: 514/2; 424/450, 424/489, 514/21, 530/412, 530/418, 530/419, 530/427

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw. Desc | Image

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☐ 10. Document ID: AU 200221320 A WO 200245690 A1

L2: Entry 10 of 11 File: DWPI Jun 18, 2002

DERWENT-ACC-NO: 2002-471870
DERWENT-WEEK: 200262
COPYRIGHT 2003 DERWENT INFORMATION LTD
TITLE: Production of uniform small particles, e.g. of a protein drug such as insulin, by contacting and a expanding non-gaseous fluid containing the material with dense gas including anti-solvent and a modifying agent

INVENTOR: BUSTAMI, R T; CHAN, H ; DEHGHANI, F ; FOSTER, N R ; REGTOP, H L

PRIORITY-DATA: 2000AU-0001970 (December 8, 2000)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
AU 200221320 A	June 18, 2002		000	A61K009/14
WO 200245690 A1	June 13, 2002	E	043	A61K009/14

INT-CL (IPC): A61 K 9/14; A61 K 38/28; A61 P 3/10

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw. Desc | Image

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☐ 11. Document ID: EP 1242112 A1 WO 200145731 A1 AU 200127291 A

L2: Entry 11 of 11 File: DWPI Sep 25, 2002

DERWENT-ACC-NO: 2001-581197
DERWENT-WEEK: 200271

TITLE: Preparation of particulate drug-containing material (e.g. insulin), by mixing a drug-containing solution with an antisolvent, and encapsulating to form aerosolizable particles for inhalation

INVENTOR: ETTER, J B

PRIORITY-DATA: 2000US-0604786 (June 26, 2000), 1999US-0469733 (December 21, 1999)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
EP 1242112 A1	September 25, 2002	E	000	A61K038/28
WO 200145731 A1	June 28, 2001	E	063	A61K038/28
AU 200127291 A	July 3, 2001		000	A61K038/28

INT-CL (IPC): A61 K 9/12; A61 K 9/14; A61 K 9/16; A61 K 38/28; C07 K 14/62; C07 K 14/64

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw. Desc | Image

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Term	Documents
INSULIN.DWPI,TDBD,EPAB,USPT,PGPB.	35819
INSULINS.DWPI,TDBD,EPAB,USPT,PGPB.	693
ANTISOLVENT.DWPI,TDBD,EPAB,USPT,PGPB.	546
ANTISOLVENTS.DWPI,TDBD,EPAB,USPT,PGPB.	139
PARTICLE?	0
PARTICLEA.DWPI,TDBD,EPAB;USPT,PGPB.	10
PARTICLED.DWPI,TDBD,EPAB,USPT,PGPB.	755
PARTICLEE.DWPI,TDBD,EPAB,USPT,PGPB.	18
PARTICLEG.DWPI,TDBD,EPAB,USPT,PGPB.	1
PARTICLEL.DWPI,TDBD,EPAB,USPT,PGPB.	4
(INSULIN SAME PARTICLE? AND ANTISOLVENT).USPT,PGPB,EPAB,DWPI,TDBD.	11

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Search Results - Record(s) 1 through 7 of 7 returned.

☐ 1. Document ID: US 20020132007 A1

L5: Entry 1 of 7 File: PGPB Sep 19, 2002

PGPUB-DOCUMENT-NUMBER: 20020132007
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020132007 A1

TITLE: Sustainded-release composition including amorphous polymer

PUBLICATION-DATE: September 19, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Randolph, Theodore W.	Niwot	CO	US	
Manning, Mark C.	Fort Collins	CO	US	
Falk, Richard F.	Bend	OR	US	

US-CL-CURRENT: 424/486

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Image

☐ 2. Document ID: US 20020032166 A1

L5: Entry 2 of 7 File: PGPB Mar 14, 2002

PGPUB-DOCUMENT-NUMBER: 20020032166
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020032166 A1

TITLE: Biocompatible cationic detergents and uses therefor

PUBLICATION-DATE: March 14, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Shefter, Eli	LaJolla	CA	US	
Ruth, James A.	Boulder	CO	US	
Meyer, Jeffrey D.	Aurora	CO	US	
Manning, Mark C.	Fort Collins	CO	US	
Kroll, David J.	Evergreen	CO	US	
Claffey, David J.	Lakewood	CO	US	

US-CL-CURRENT: 514/44; 514/171, 552/544

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Image

☐ 3. Document ID: US 6403672 B1

L5: Entry 3 of 7 File: USPT Jun 11, 2002

US-PAT-NO: 6403672
DOCUMENT-IDENTIFIER: US 6403672 B1

TITLE: Preparation and use of photopolymerized microparticles

DATE-ISSUED: June 11, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Randolph; Theodore	Niwot	CO		
Anseth; Kristi	Boulder	CO		
Owens; Jennifer L.	Boulder	CO		
Lengsfeld; Corinne	Denver	CO		

US-CL-CURRENT: 522/79; 424/486, 424/489, 522/182, 522/80, 522/87, 522/88, 522/89

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

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☐ 4. Document ID: US 5981474 A

L5: Entry 4 of 7 File: USPT Nov 9, 1999

US-PAT-NO: 5981474
DOCUMENT-IDENTIFIER: US 5981474 A

TITLE: Solubilization of pharmaceutical substances in an organic solvent and preparation of pharmaceutical powders using the same

DATE-ISSUED: November 9, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Manning; Mark C.	Fort Collins	CO		
Randolph; Theodore W.	Niwot	CO		
Shefter; Eli	LaJolla	CA		
Falk, III; Richard F.	Boulder	CO		

US-CL-CURRENT: 514/2; 424/450, 424/489, 514/21, 530/412, 530/418, 530/419, 530/427

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

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☐ 5. Document ID: US 5770559 A

L5: Entry 5 of 7 File: USPT Jun 23, 1998

US-PAT-NO: 5770559
DOCUMENT-IDENTIFIER: US 5770559 A

TITLE: Solubilization of pharmaceutical substances in an organic solvent and preparation of pharmaceutical powders using the same

DATE-ISSUED: June 23, 1998

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Manning; Mark C.	Fort Collins	CO		
Randolph; Theodore W.	Niwot	CO		
Shefter; Eli	LaJolla	CA		
Falk, III; Richard F.	Boulder	CO		

US-CL-CURRENT: 514/2; 424/450, 424/489, 514/21, 530/412, 530/418, 530/419, 530/427

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw. Desc | Image

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☐ 6. Document ID: AU 200221320 A WO 200245690 A1

L5: Entry 6 of 7 File: DWPI Jun 18, 2002

DERWENT-ACC-NO: 2002-471870
DERWENT-WEEK: 200262
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TITLE: Production of uniform small particles, e.g. of a protein drug such as insulin, by contacting and a expanding non-gaseous fluid containing the material with dense gas including anti-solvent and a modifying agent

INVENTOR: BUSTAMI, R T; CHAN, H ; DEHGHANI, F ; FOSTER, N R ; REGTOP, H L

PRIORITY-DATA: 2000AU-0001970 (December 8, 2000)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
AU 200221320 A	June 18, 2002		000	A61K009/14
WO 200245690 A1	June 13, 2002	E	043	A61K009/14

INT-CL (IPC): A61 K 9/14; A61 K 38/28; A61 P 3/10

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw. Desc | Image

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☐ 7. Document ID: EP 1242112 A1 WO 200145731 A1 AU 200127291 A

L5: Entry 7 of 7 File: DWPI Sep 25, 2002

DERWENT-ACC-NO: 2001-581197
DERWENT-WEEK: 200271
COPYRIGHT 2003 DERWENT INFORMATION LTD
TITLE: Preparation of particulate drug-containing material (e.g. insulin), by mixing a drug-containing solution with an antisolvent, and encapsulating to form aerosolizable particles for inhalation

INVENTOR: ETTER, J B

PRIORITY-DATA: 2000US-0604786 (June 26, 2000), 1999US-0469733 (December 21, 1999)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
EP 1242112 A1	September 25, 2002	E	000	A61K038/28
WO 200145731 A1	June 28, 2001	E	063	A61K038/28
AU 200127291 A	July 3, 2001		000	A61K038/28

INT-CL (IPC): A61 K 9/12; A61 K 9/14; A61 K 9/16; A61 K 38/28; C07 K 14/62; C07 K 14/64

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw. Desc | Image

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Term	Documents
INHALER.DWPI,TDBD,EPAB,USPT,PGPB.	6263
INHALERS.DWPI,TDBD,EPAB,USPT,PGPB.	2024
INHALATION.DWPI,TDBD,EPAB,USPT,PGPB.	33266
INHALATIONS.DWPI,TDBD,EPAB,USPT,PGPB.	1066
AEROSOLIZATION.DWPI,TDBD,EPAB,USPT,PGPB.	1156
AEROSOLISATION.DWPI,TDBD,EPAB,USPT,PGPB.	52
AEROSOLISATIONS	0
AEROSOLIZATIONS.DWPI,TDBD,EPAB,USPT,PGPB.	8
(4 AND (AEROSOLIZATION OR INHALER OR INHALATION)).USPT,PGPB,EPAB,DWPI,TDBD.	7
(L4 AND (INHALER OR INHALATION OR AEROSOLIZATION)).USPT,PGPB,EPAB,DWPI,TDBD.	7

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Search Results - Record(s) 1 through 1 of 1 returned.

☐ 1. Document ID: US 20010036480 A1

L7: Entry 1 of 1 File: PGPB Nov 1, 2001

PGPUB-DOCUMENT-NUMBER: 20010036480
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20010036480 A1

TITLE: Particulate drug-containing products and method of manufacture

PUBLICATION-DATE: November 1, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Etter, Jeffrey B.	Boulder	CO	US	

US-CL-CURRENT: 424/489; 264/12

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

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Term	Documents
INSULIN.DWPI,TDBD,EPAB,USPT,PGPB.	35819
INSULINS.DWPI,TDBD,EPAB,USPT,PGPB.	693
ANTISOLVENT.DWPI,TDBD,EPAB,USPT,PGPB.	546
ANTISOLVENTS.DWPI,TDBD,EPAB,USPT,PGPB.	139
COSOLVENT.DWPI,TDBD,EPAB,USPT,PGPB.	6693
COSOLVENTS.DWPI,TDBD,EPAB,USPT,PGPB.	4167
PARTICLE?	0
PARTICLEA.DWPI,TDBD,EPAB,USPT,PGPB.	10
PARTICLED.DWPI,TDBD,EPAB,USPT,PGPB.	755
PARTICLEE.DWPI,TDBD,EPAB,USPT,PGPB.	18
PARTICLEG.DWPI,TDBD,EPAB,USPT,PGPB.	1
(INSULIN SAME (PARTICLE? OR POWDER?) SAME (ANTISOLVENT AND COSOLVENT)).USPT,PGPB,EPAB,DWPI,TDBD.	1

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Search Results - Record(s) 1 through 15 of 15 returned.

☐ 1. Document ID: US 20020119104 A1

L2: Entry 1 of 15 File: PGPB Aug 29, 2002

PGPUB-DOCUMENT-NUMBER: 20020119104
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020119104 A1

TITLE: Treatment of mucositis

PUBLICATION-DATE: August 29, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Rosenthal, Gary J.	Louisville	CO	US	
Etter, Jeffrey B.	Boulder	CO	US	
Rodell, Timothy C.	Aspen	CO	US	
Schauer, Wren H.	Boulder	CO	US	
Samaniego, Adrian	Louisville	CO	US	

US-CL-CURRENT: 424/49

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Image

☐ 2. Document ID: US 20020102272 A1

L2: Entry 2 of 15 File: PGPB Aug 1, 2002

PGPUB-DOCUMENT-NUMBER: 20020102272
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020102272 A1

TITLE: Composition for delivery of hematopoietic growth factor

PUBLICATION-DATE: August 1, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Rosenthal, Gary J.	Louisville	CO	US	
Etter, Jeffrey B.	Boulder	CO	US	

US-CL-CURRENT: 424/198.1; 435/283.1, 530/350

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Image

☐ 3. Document ID: US 20020028515 A1

L2: Entry 3 of 15 File: PGPB Mar 7, 2002

PGPUB-DOCUMENT-NUMBER: 20020028515
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020028515 A1

TITLE: Methods for use of delivery composition for expanding, activating, committing or mobilizing one or more pluripotent, self-renewing and committed stem cells

PUBLICATION-DATE: March 7, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Talmadge, James E.	Bellevue	NE	US	
Rosenthal, Gary J.	Louisville	CO	US	
Etter, Jeffrey B.	Boulder	CO	US	

US-CL-CURRENT: 435/458; 435/368

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Image

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☐ 4. Document ID: US 20010036480 A1

L2: Entry 4 of 15 File: PGPB Nov 1, 2001

PGPUB-DOCUMENT-NUMBER: 20010036480
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20010036480 A1

TITLE: Particulate drug-containing products and method of manufacture

PUBLICATION-DATE: November 1, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Etter, Jeffrey B.	Boulder	CO	US	

US-CL-CURRENT: 424/489; 264/12

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Image

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☐ 5. Document ID: US 5869272 A

L2: Entry 5 of 15 File: USPT Feb 9, 1999

US-PAT-NO: 5869272
DOCUMENT-IDENTIFIER: US 5869272 A

TITLE: Methods for detection of gram negative bacteria

DATE-ISSUED: February 9, 1999

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bogart; Gregory R.	Berthoud	CO		
Moddel; Garret R.	Boulder	CO		
Maul; Diana M.	Thornton	CO		
Etter; Jeffrey B.	Boulder	CO		
Crosby; Mark	Niwot	CO		

US-CL-CURRENT: 435/7.32; 356/402, 356/445, 356/453, 422/82.05, 422/82.08, 435/7.36, 435/7.9, 435/7.92, 435/808, 435/810 , 436/163, 436/172, 436/174, 436/177, 436/518, 436/527, 436/531, 436/532, 436/63, 436/804, 436/805, 436/811

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

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☐ 6. Document ID: US 5639671 A

L2: Entry 6 of 15 File: USPT Jun 17, 1997

US-PAT-NO: 5639671
DOCUMENT-IDENTIFIER: US 5639671 A

TITLE: Methods for optimizing of an optical assay device

DATE-ISSUED: June 17, 1997

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bogart; Gregory R.	Fort Collins	CO		
Etter; Jeffrey B.	Boulder	CO		

US-CL-CURRENT: 436/518; 359/581, 359/585, 359/586, 359/589, 422/55, 422/57, 422/82.05, 422/82.11, 427/162, 427/164, 427/165, 427/166, 427/167, 427/250, 427/255.37, 427/337, 427/338, 427/404, 427/419.1, 427/419.2, 435/4, 435/808, 436/164, 436/165, 436/524, 436/532

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

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☐ 7. Document ID: US 5541057 A

L2: Entry 7 of 15 File: USPT Jul 30, 1996

US-PAT-NO: 5541057
DOCUMENT-IDENTIFIER: US 5541057 A

TITLE: Methods for detection of an analyte

DATE-ISSUED: July 30, 1996

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bogart; Gregory R.	Berthoud	CO		
Moddel; Garret R.	Boulder	CO		
Maul; Diana M.	Thornton	CO		
Etter; Jeffrey B.	Boulder	CO		
Crosby; Mark	Niwot	CO		

US-CL-CURRENT: 435/5; 356/369, 359/540, 359/581, 359/585, 422/55, 422/57, 422/58, 435/287.2, 435/6, 435/7.21, 435/7.22, 435/7.23, 435/7.32, 435/7.34, 435/808, 436/164, 436/513, 436/524, 436/525, 436/527, 436/531, 436/805

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

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☐ 8. Document ID: US 5482830 A

L2: Entry 8 of 15 File: USPT Jan 9, 1996

US-PAT-NO: 5482830
DOCUMENT-IDENTIFIER: US 5482830 A

TITLE: Devices and methods for detection of an analyte based upon light interference

DATE-ISSUED: January 9, 1996

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bogart; Gregory R.	Berthoud	CO		
Moddel; Garret R.	Boulder	CO		
Maul; Diana M.	Thornton	CO		
Etter; Jeffrey B.	Boulder	CO		

US-CL-CURRENT: 435/5; 356/369, 359/580, 359/585, 359/586, 359/589, 422/55, 422/57, 422/58, 422/82.05, 435/7.21, 435/7.22 , 435/7.32, 435/7.36, 435/808, 436/164, 436/510, 436/513, 436/518, 436/524, 436/525, 436/527, 436/805

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

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☐ 9. Document ID: US 5468606 A

L2: Entry 9 of 15 File: USPT Nov 21, 1995

US-PAT-NO: 5468606
DOCUMENT-IDENTIFIER: US 5468606 A

TITLE: Devices for detection of an analyte based upon light interference

DATE-ISSUED: November 21, 1995

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Bogart; Gregory R.	Fort Collins	CO		
Moddel; Garret R.	Boulder	CO		
Maul; Diana M.	Thornton	CO		
Etter; Jeffrey B.	Boulder	CO		

US-CL-CURRENT: 435/5; 356/369, 359/580, 359/581, 359/585, 359/586, 422/55, 422/57, 422/58, 422/82.05, 435/287.2, 435/6, 435/7.21, 435/7.22, 435/7.23, 435/7.32, 435/7.34, 435/808, 436/164, 436/513, 436/524, 436/525, 436/527, 436/531, 436/805

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

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☐ 10. Document ID: EP 1126278 A2

L2: Entry 10 of 15 File: EPAB Aug 22, 2001

PUB-NO: EP001126278A2
DOCUMENT-IDENTIFIER: EP 1126278 A2
TITLE: Devices and methods for detection of an analyte based upon light interference

PUBN-DATE: August 22, 2001

INVENTOR-INFORMATION:

NAME	COUNTRY
BOGART, GREGORY R	US
MAUL, DIANA M	US
CROSBY, MARK	US
MODDEL, GARRET R	US
ETTER, JEFFREY B	US
MILLER, JOHN B	US
BLESSING, JAMES	US
KELLEY, HOWARD	US
SANDSTROM, TORBJORN	SE
STIBLERT, LARS	SE

INT-CL (IPC): G01 N 33/52; B01 L 3/00
EUR-CL (EPC): G01N021/77

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

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☐ 11. Document ID: WO 9818962 A1

L2: Entry 11 of 15 File: EPAB May 7, 1998

PUB-NO: WO009818962A1
DOCUMENT-IDENTIFIER: WO 9818962 A1
TITLE: METHODS AND DEVICES FOR MASS TRANSPORT ASSISTED OPTICAL ASSAYS

PUBN-DATE: May 7, 1998

INVENTOR-INFORMATION:

NAME	COUNTRY
DREWES, JOEL A	
BOGART, GREGORY R	
ETTER, JEFFREY B	
STEAFFENS, JEFFREY W	
OSTROFF, RACHEL M	
CROSBY, MARK	

INT-CL (IPC): C12 Q 1/68; C12 Q 1/70; C12 P 19/34; G01 N 33/53; C07 H 21/02; C07 H 21/04; G01 N 21/00; G01 N 21/29; A61 K 38/00; C07 K 16/00
EUR-CL (EPC): G01N033/543; C12Q001/68, G01N021/77

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

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☐ 12. Document ID: WO 9403774 A1

L2: Entry 12 of 15 File: EPAB Feb 17, 1994

PUB-NO: WO009403774A1
DOCUMENT-IDENTIFIER: WO 9403774 A1
TITLE: DEVICES AND METHODS FOR DETECTION OF AN ANALYTE BASED UPON LIGHT INTERFERENCE

PUBN-DATE: February 17, 1994

INVENTOR-INFORMATION:

NAME	COUNTRY
BOGART, GREGORY R	
MODDEL, GARRET R	
MAUL, DIANA M	
ETTER, JEFFREY B	
CROSBY, MARK	
MILLER, JOHN B	
BLESSING, JAMES	
KELLEY, HOWARD	
SANDSTROM, TORBJORN	
STIBLERT, LARS	

INT-CL (IPC): G01B 9/02; G01N 21/62
EUR-CL (EPC): G01N021/21; G01N021/21, G01N033/543

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw. Desc | Image

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☐ 13. Document ID: WO 9216826 A1

L2: Entry 13 of 15 File: EPAB Oct 1, 1992

PUB-NO: WO009216826A1
DOCUMENT-IDENTIFIER: WO 9216826 A1
TITLE: APPARATUS FOR DETECTION OF AN IMMOBILIZED ANALYTE

PUBN-DATE: October 1, 1992

INVENTOR-INFORMATION:

NAME	COUNTRY
ETTER, JEFFREY B	US
MAUL, DIANA M	US
MODDEL, GARRET R	US
STARZL, TIMOTHY	US
HANLIN, H JOHN	US

INT-CL (IPC): G01N 21/00; G01N 21/75; G01N 33/552
EUR-CL (EPC): G01N021/47; G01N033/543

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw. Desc | Clip Img | Image

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☐ 14. Document ID: WO 9104491 A1

L2: Entry 14 of 15 File: EPAB Apr 4, 1991

PUB-NO: WO009104491A1
DOCUMENT-IDENTIFIER: WO 9104491 A1

TITLE: METHOD AND APPARATUS FOR DETECTION OF AN ANALYTE

PUBN-DATE: April 4, 1991

INVENTOR-INFORMATION:

NAME	COUNTRY
MODDEL, GARRET R	US
MAUL, DIANA M	US
ETTER, JEFFREY B	US
STARZL, TIMOTHY W	US

US-CL-CURRENT: 436/518
INT-CL (IPC): G01N 33/543
EUR-CL (EPC): G01N021/21; G01N033/543, G01N033/543 , G01N033/551 , G01N033/552 , G01N021/77

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Image

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☐ 15. Document ID: WO 9104483 A1

L2: Entry 15 of 15 File: EPAB Apr 4, 1991

PUB-NO: WO009104483A1
DOCUMENT-IDENTIFIER: WO 9104483 A1
TITLE: APPARATUS FOR DETECTION OF AN IMMOBILIZED ANALYTE

PUBN-DATE: April 4, 1991

INVENTOR-INFORMATION:

NAME	COUNTRY
ETTER, JEFFREY B	US
MAUL, DIANA M	US
MODDEL, GARRET R	US
STARZL, TIMOTHY	US
HANLIN, H JOHN	US

US-CL-CURRENT: 436/164; 436/170, 436/525, 436/527
INT-CL (IPC): G01N 21/00; G01N 21/75; G01N 33/552; G01N 33/553
EUR-CL (EPC): G01N021/47; G01N033/543

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | KWIC | Draw Desc | Clip Img | Image

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Term	Documents
ETTER-JEFFREY-B$	0
ETTER-JEFFREY-B.DWPI,EPAB,USPT,PGPB.	15
ETTER-JEFFREY-B$.IN..USPT,PGPB,EPAB,DWPI,TDBD.	15
(ETTER-JEFFREY-B$.IN.).USPT,PGPB,EPAB,DWPI,TDBD.	15

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